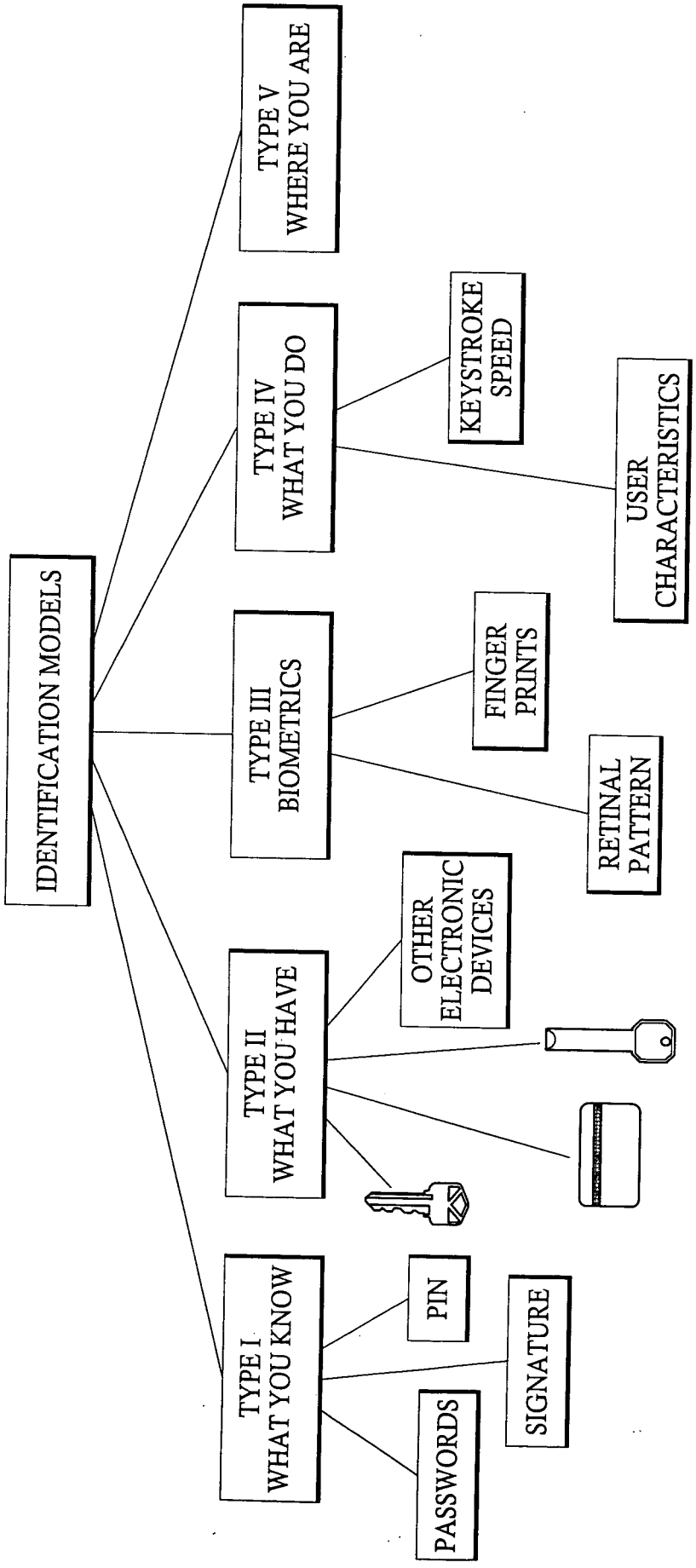


FIG. 1
(BACKGROUND)

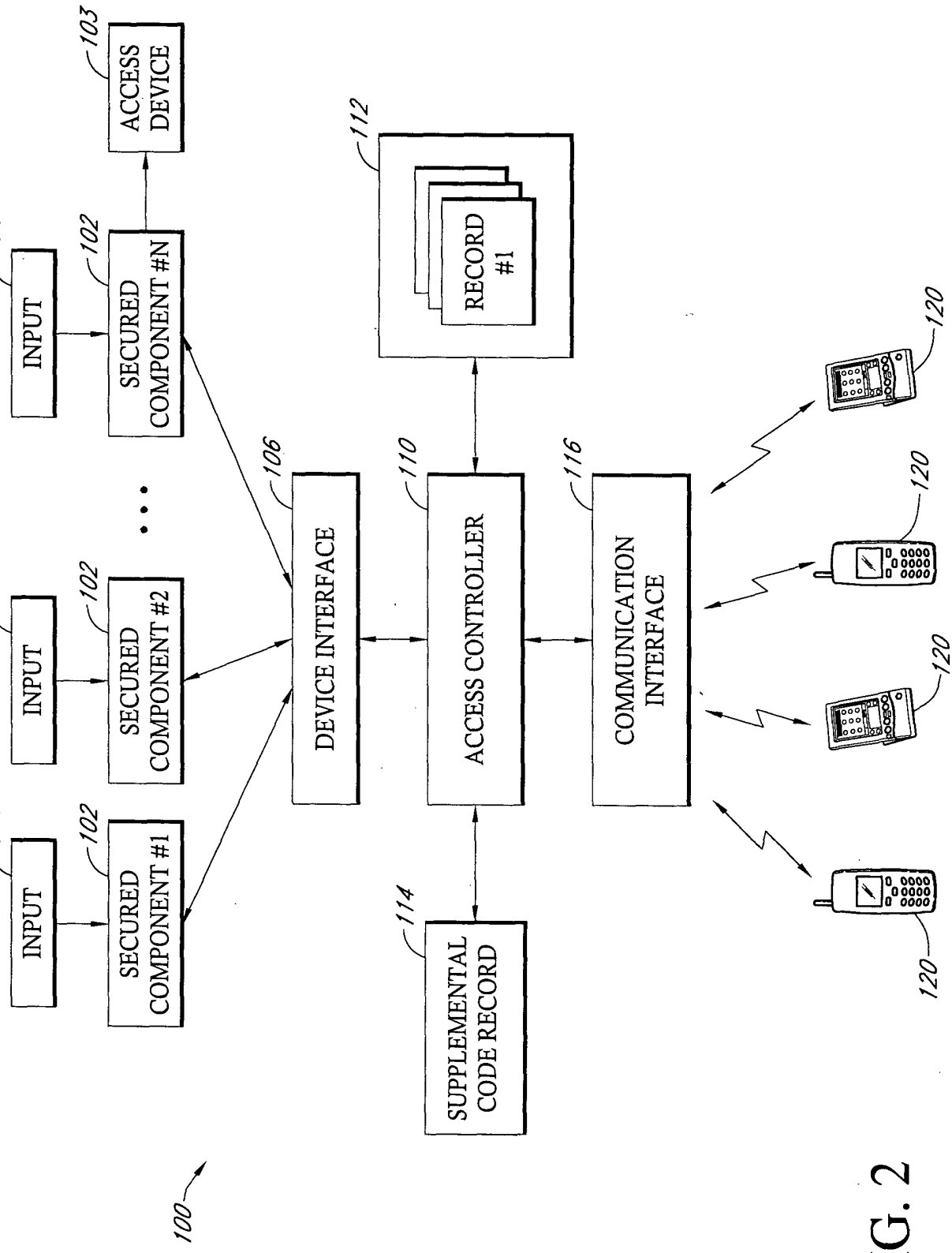

100
INPUT
104
SECURED COMPONENT #1
102
ACCESS DEVICE
103
SECURED COMPONENT #N
INPUT
SECURED COMPONENT #2
DEVICE INTERFACE
106
ACCESS CONTROLLER
110
COMMUNICATION INTERFACE
116
RECORD #1
112
SUPPLEMENTAL CODE RECORD
114
120

FIG. 2

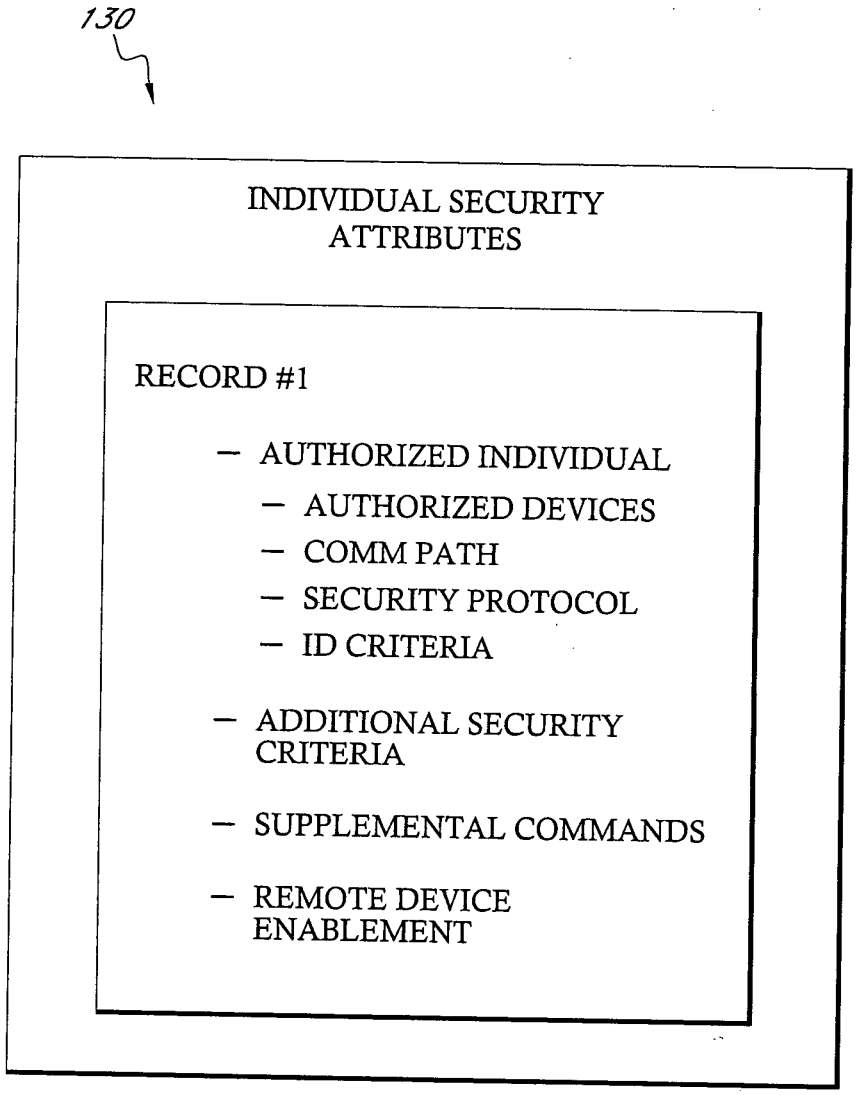

130
INDIVIDUAL SECURITY ATTRIBUTES
RECORD #1
– AUTHORIZED INDIVIDUAL
– AUTHORIZED DEVICES
– COMM PATH
– SECURITY PROTOCOL
– ID CRITERIA
– ADDITIONAL SECURITY CRITERIA
– SUPPLEMENTAL COMMANDS
– REMOTE DEVICE ENABLEMENT

FIG. 3A

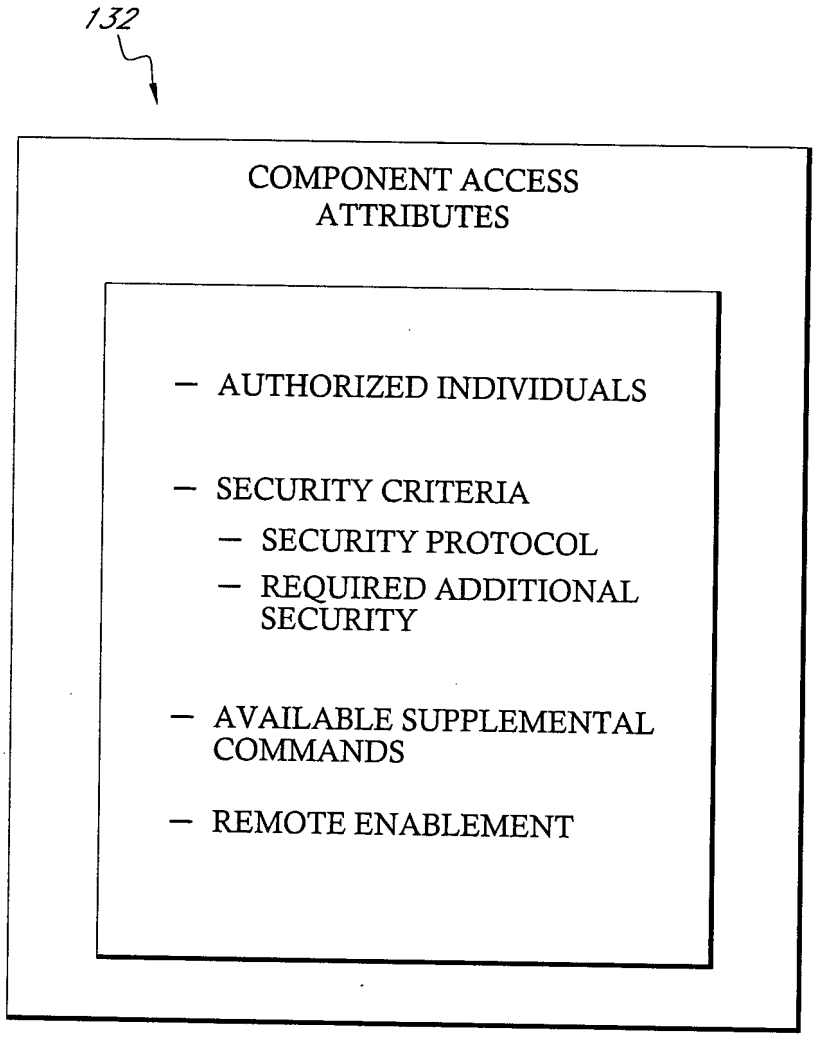

132
COMPONENT ACCESS ATTRIBUTES
– AUTHORIZED INDIVIDUALS
– SECURITY CRITERIA
– SECURITY PROTOCOL
– REQUIRED ADDITIONAL SECURITY
– AVAILABLE SUPPLEMENTAL COMMANDS
– REMOTE ENABLEMENT

FIG. 3B

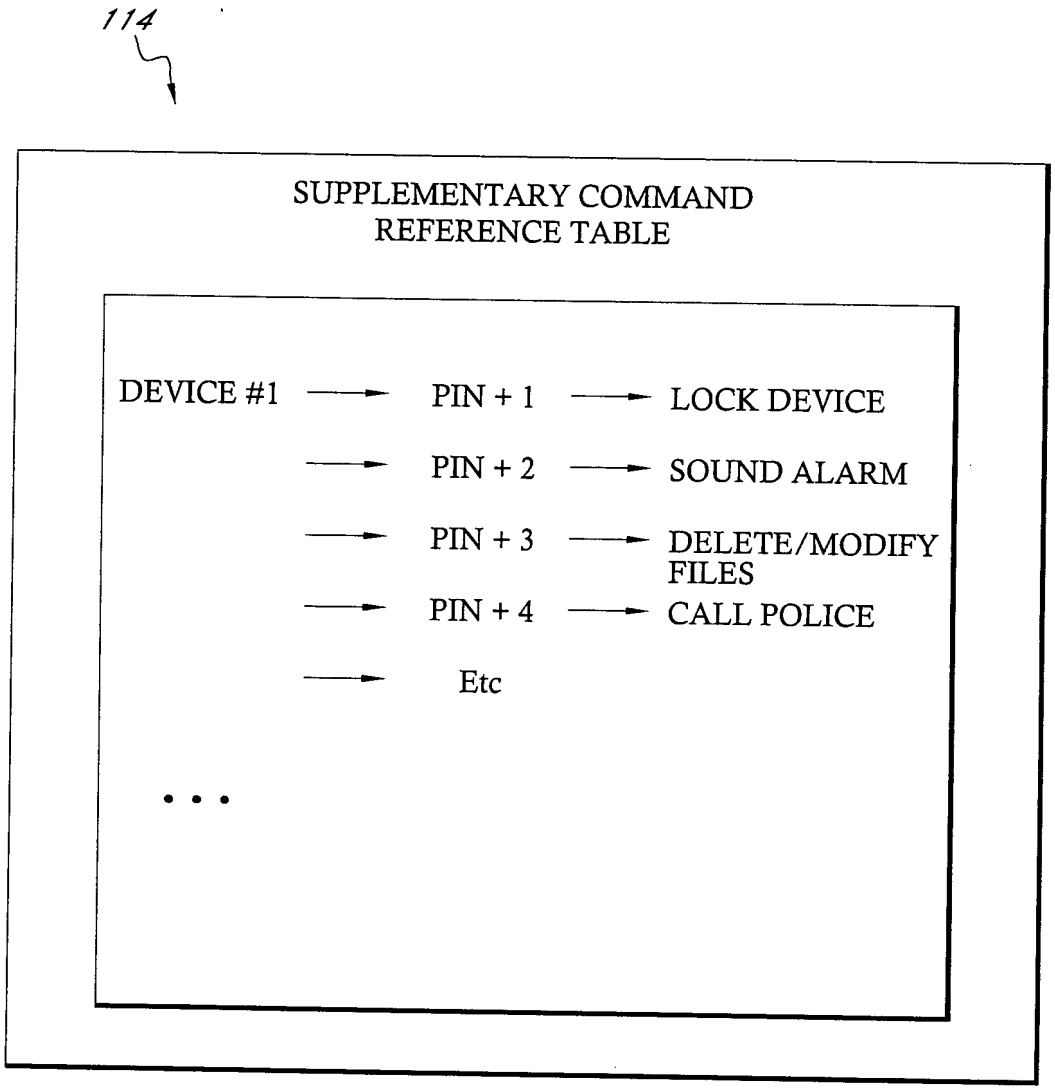
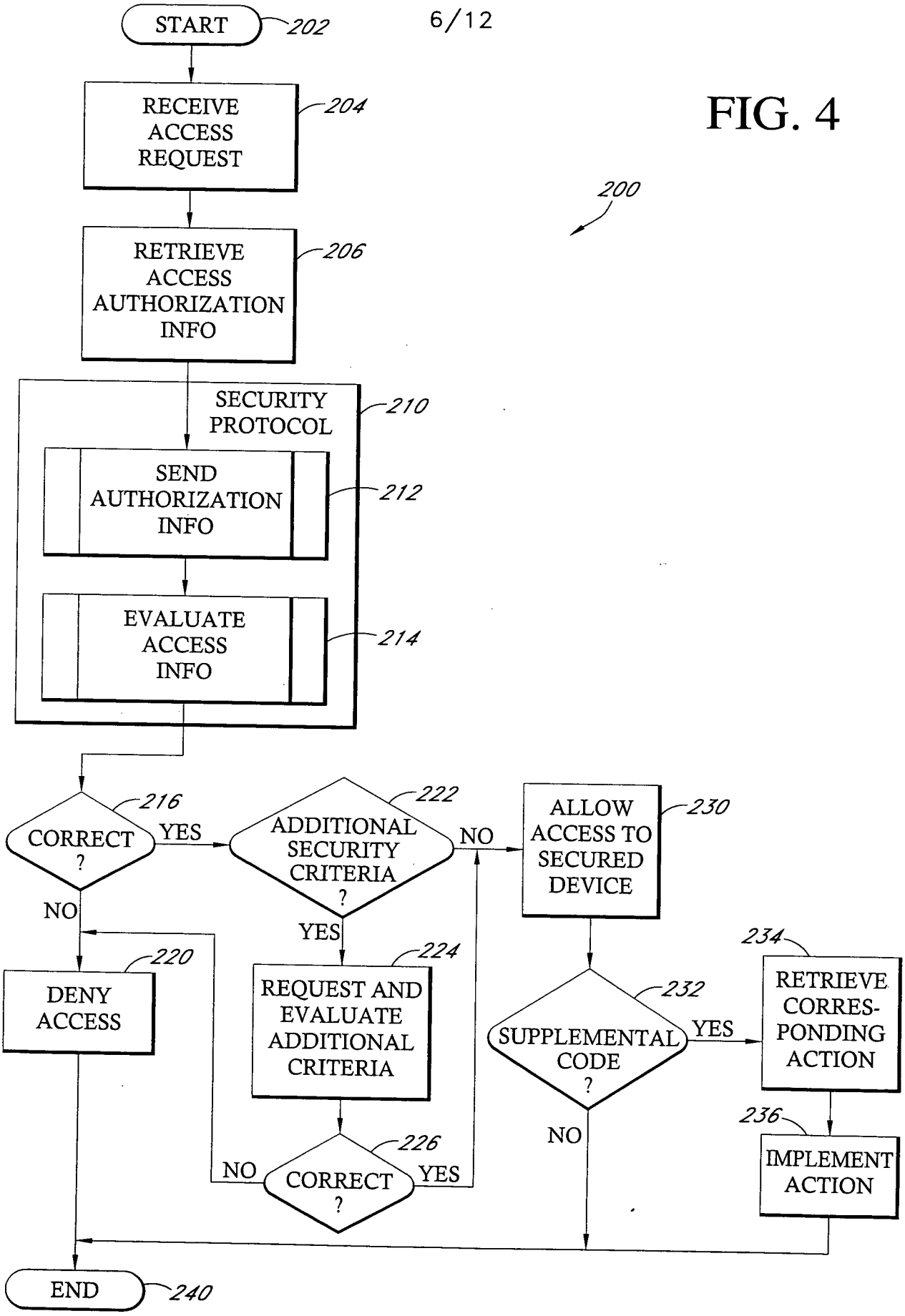

114
SUPPLEMENTARY COMMAND REFERENCE TABLE
DEVICE #1
PIN + 1
LOCK DEVICE
PIN + 2
SOUND ALARM
PIN + 3
DELETE/MODIFY FILES
PIN + 4
CALL POLICE
Etc
• • •

FIG. 3C

FIG. 4


200
START
202
RECEIVE ACCESS REQUEST
204
RETRIEVE ACCESS AUTHORIZATION INFO
206
SECURITY PROTOCOL
210
SEND AUTHORIZATION INFO
212
EVALUATE ACCESS INFO
214
CORRECT ?
216
YES
NO
ADDITIONAL SECURITY CRITERIA ?
222
YES
NO
ALLOW ACCESS TO SECURED DEVICE
230
DENY ACCESS
220
REQUEST AND EVALUATE ADDITIONAL CRITERIA
224
CORRECT ?
226
NO
YES
SUPPLEMENTAL CODE ?
232
YES
NO
RETRIEVE CORRES-PONDING ACTION
234
IMPLEMENT ACTION
236
END
240

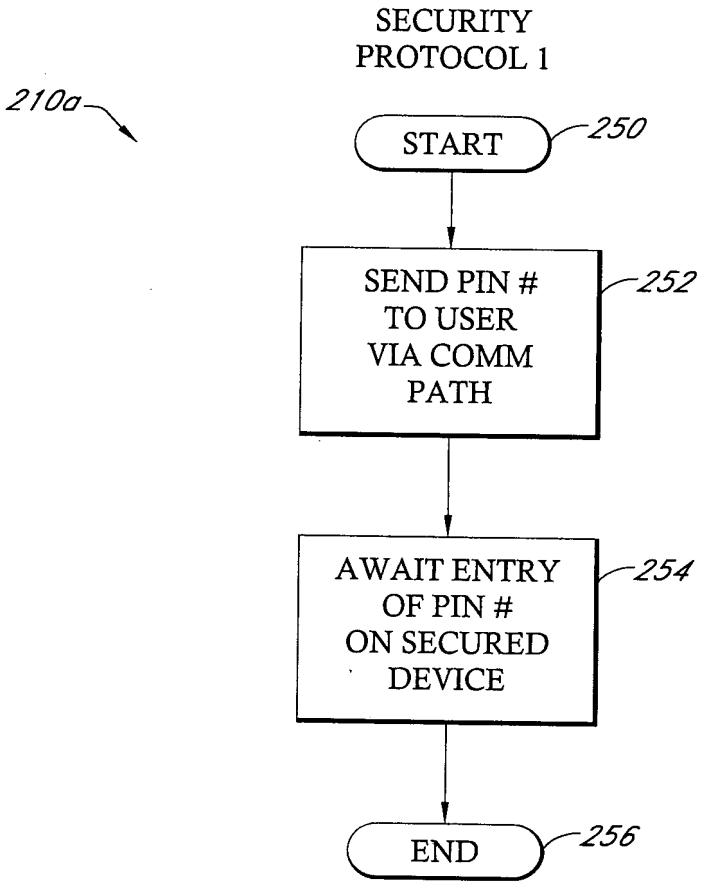

SECURITY
PROTOCOL 1
210a
START
250
SEND PIN #
TO USER
VIA COMM
PATH
252
AWAIT ENTRY
OF PIN #
ON SECURED
DEVICE
254
END
256

FIG. 5A

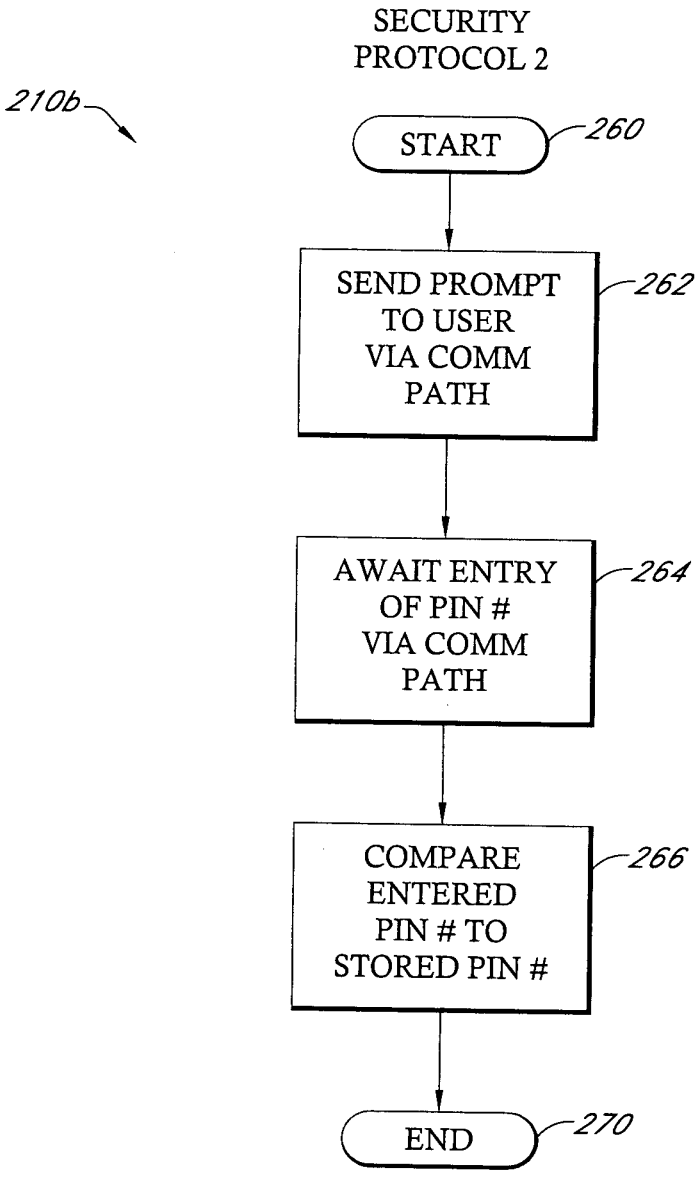

SECURITY
PROTOCOL 2
210b
START
260
SEND PROMPT
TO USER
VIA COMM
PATH
262
AWAIT ENTRY
OF PIN #
VIA COMM
PATH
264
COMPARE
ENTERED
PIN # TO
STORED PIN #
266
END
270

FIG. 5B

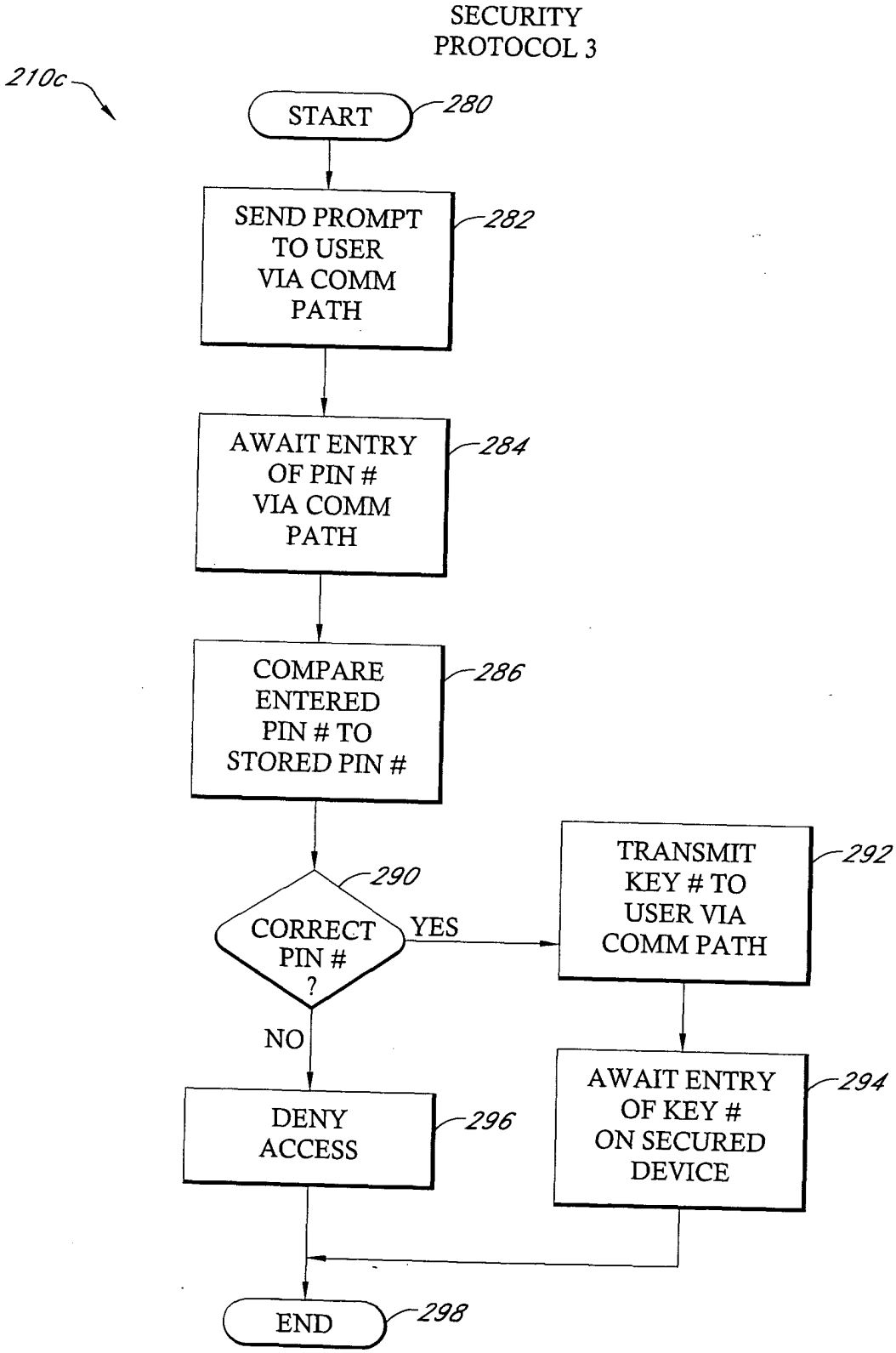

SECURITY
PROTOCOL 3
210c
START
280
SEND PROMPT TO USER VIA COMM PATH
282
AWAIT ENTRY OF PIN # VIA COMM PATH
284
COMPARE ENTERED PIN # TO STORED PIN #
286
CORRECT PIN # ?
290
YES
TRANSMIT KEY # TO USER VIA COMM PATH
292
NO
DENY ACCESS
296
AWAIT ENTRY OF KEY # ON SECURED DEVICE
294
END
298

FIG. 5C

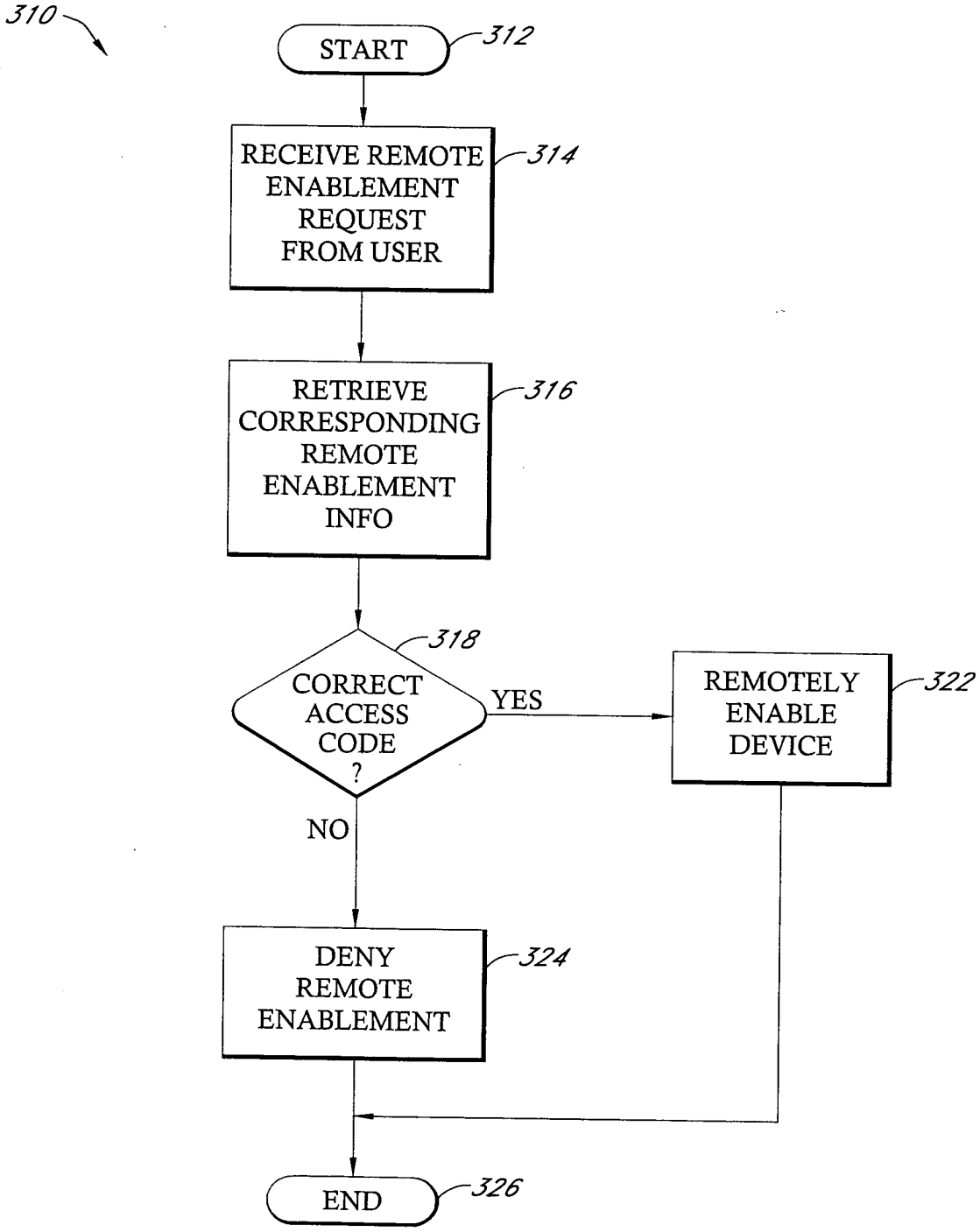

310
START
312
RECEIVE REMOTE ENABLEMENT REQUEST FROM USER
314
RETRIEVE CORRESPONDING REMOTE ENABLEMENT INFO
316
CORRECT ACCESS CODE ?
318
YES
REMOTELY ENABLE DEVICE
322
NO
DENY REMOTE ENABLEMENT
324
END
326

FIG. 6

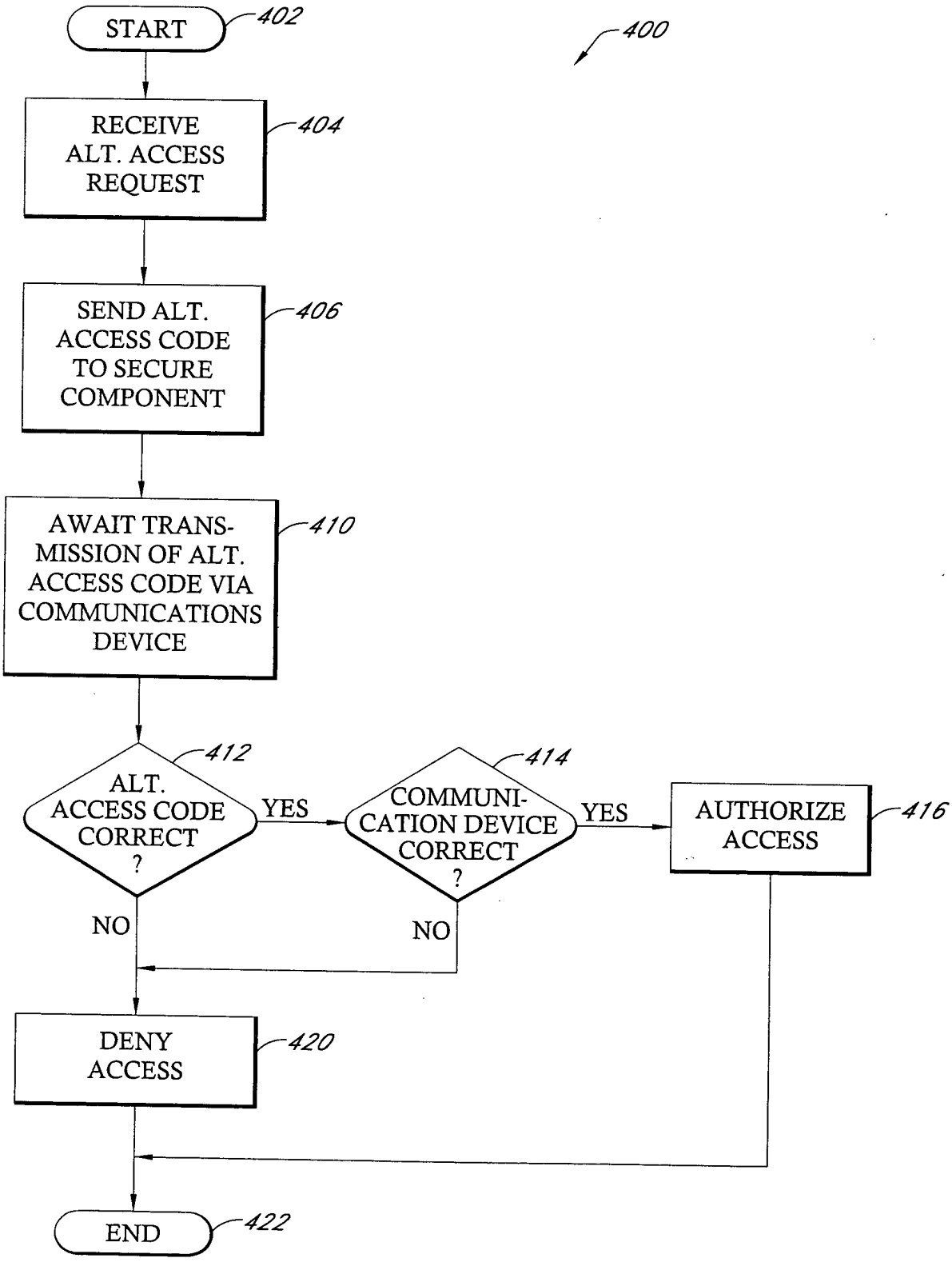

START
402
400
RECEIVE ALT. ACCESS REQUEST
404
SEND ALT. ACCESS CODE TO SECURE COMPONENT
406
AWAIT TRANS-MISSION OF ALT. ACCESS CODE VIA COMMUNICATIONS DEVICE
410
ALT. ACCESS CODE CORRECT ?
412
YES
COMMUNI-CATION DEVICE CORRECT ?
414
YES
AUTHORIZE ACCESS
416
NO
NO
DENY ACCESS
420
END
422

FIG. 7A

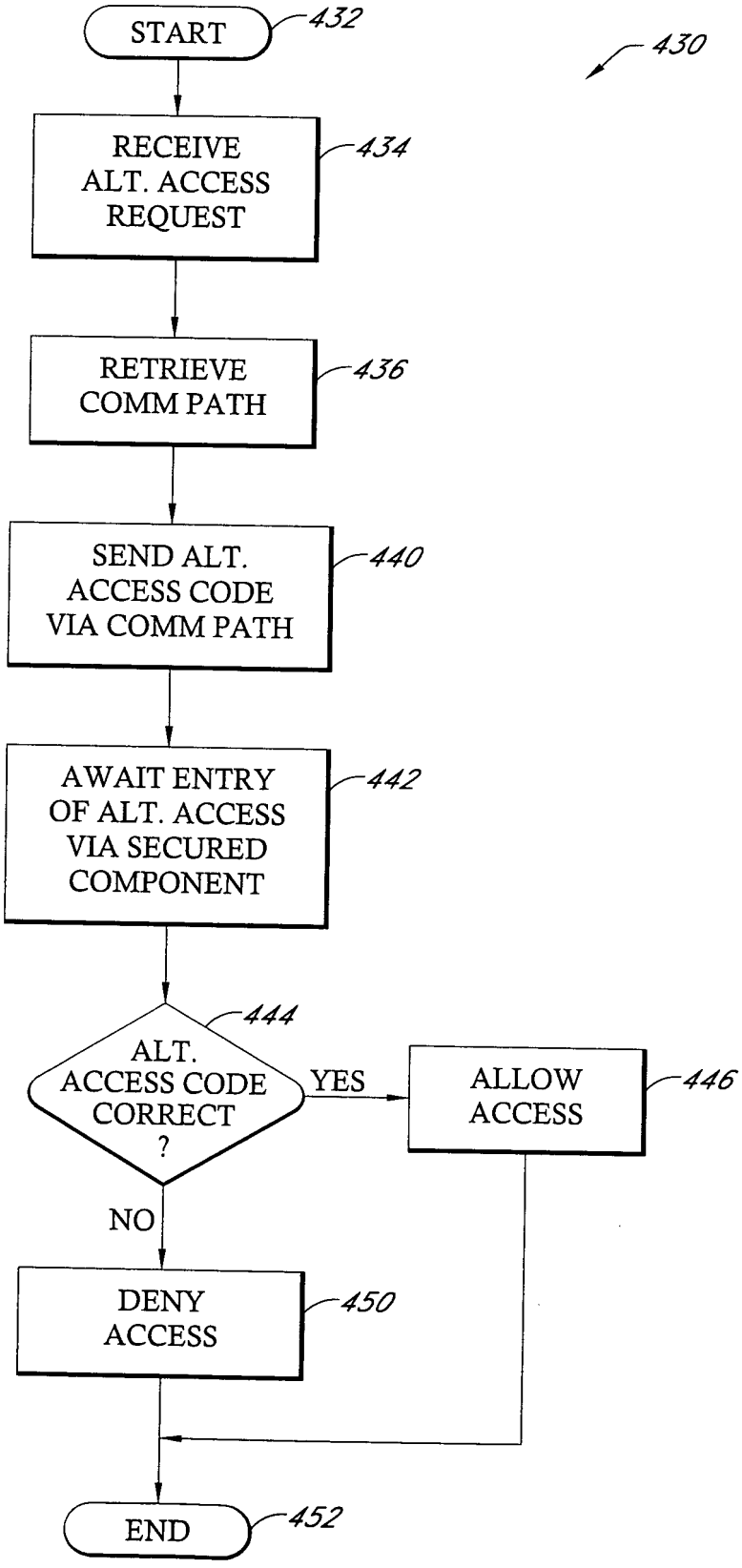

START
432
430
RECEIVE ALT. ACCESS REQUEST
434
RETRIEVE COMM PATH
436
SEND ALT. ACCESS CODE VIA COMM PATH
440
AWAIT ENTRY OF ALT. ACCESS VIA SECURED COMPONENT
442
ALT. ACCESS CODE CORRECT ?
444
YES
ALLOW ACCESS
446
NO
DENY ACCESS
450
END
452

FIG. 7B